

Serial No.: 10/596,118

Filing Date: 5/31/2006

Attorney Docket No. 515.040US01

Title: TEST APPARATUS FOR CONTROL UNIT, PATTERN SIGNAL CREATING APPARATUS, AND TEST PROGRAM GENERATING APPARATUS

REMARKS

The Office Action mailed on April 27, 2009 has been reviewed. Claims 1-9 and 11-19 are canceled. Claims 10 and 20 are pending in this application.

Rejections Under 35 U.S.C. § 112

Claim 7 was rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 has been canceled so the rejection is moot.

Rejections Under 35 U.S.C. § 101

Claims 12-17 were rejected under 35 USC § 101 because the claimed invention is directed to non-statutory subject matter.

Claims 12-17 are canceled so the rejection is moot.

Rejections Under 35 U.S.C. § 102

Claims 1, 7-8, 10-11, 17-18 and 20 were rejected under 35 USC § 102(b) as being anticipated by Hoenninger (U.S. Patent No. 5,490,065) (herein *Hoenninger*). Applicant respectfully traverses.

Claims 1, 7-8, 11, and 17-18 are canceled. Claim 10 now recites a feature of :

means for causing said testing means during execution of a first pattern signal to switch to the execution of a second pattern signal when a first pattern signal transition condition for making a transition to the execution of said second pattern signal holds; and

means for causing said testing means during execution of said first pattern signal to switch to the execution of a third pattern signal when a second pattern signal transition condition for making a transition to the execution of said third pattern signal holds.

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Likewise, claim 20 now recites a feature of:

a step for switching, during execution of said first pattern signal, to the execution of a second pattern signal when a first pattern signal transition condition for making a transition to the execution of said second pattern signal holds; and

a step for switching, during execution of said first pattern signal, to the execution of a third pattern signal when a second pattern signal transition condition for making a transition to the execution of said third pattern signal holds

Support for these recited features is provided in at least Figures 15 and 17, and at page 16, lines 22 to 32, which discloses:

When the node indicated by the open circle (O) between the "STATE a" and the "STATE b" is doubled-clicked, a transition condition setting screen for that pattern transition condition, such as shown in FIG. 17, is displayed showing its contents. The transition condition setting screen in this example shows that when in "STATE a", if "Event 1" occurs, a transition is made to "STATE b", but if "Event 2" occurs, a transition is made to "STATE c". This screen allows the user to set or change the pattern transition condition. The same applies for the project transition condition.

The Examiner asserts in the outstanding Office Action that:

Hoenninger discloses conditions for transitioning to different pattern signals, namely first from initializing signals (Col. 3, lines 52-55) to a set of input signals generated by the signal generators (Col. 4, lines 1-6) provided that a successful communication between the control unit and testing computer is made in the initialization step. Afterwards, transition from signal generated input signals to a square wave signals (Col. 4, lines 28-35) is made provided the test program recognizes a falling edge signal on the ignition signal output line 17 (Col. 4, lines 22-28) .

At Col. 3, lines 52-55, *Hoenninger* discloses:

These signals are selected, because they do not occur during normal operation. Simultaneously, other signals, like a closed idle contact input 18, could be applied to prevent accidental initiation of the test procedure.

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At Col. 3, line 67 - Col. 4, line 6, *Hoenninger* discloses:

...the test computer 8, using the simulation and measuring unit 11, applies a set of input signals to the input lines of the control unit 10. ***The set of input signals, corresponding to the test step characterized by the test step counter, is selected from a table.***

At Col. 4, lines 22-35, *Hoenninger* discloses:

Thereafter, in step 34, the test program repeatedly interrogates or samples the ignition signal output line 17. If the test program recognizes a falling edge signal on the ignition signal output line 17, the test program realizes that the input signals for this test step have been processed by the control unit 10. If this edge signal does not occur after a predetermined time limit, the test program is terminated, and the control unit is removed from the production line.

In the following program steps, 35 and 36, ***the test computer 8***, using the simulation and measuring unit 11, ***applies square wave signals***, with ***the frequencies and duty cycles predetermined for this particular test step***, to specific control unit inputs, ***likewise predetermined for this test step***. These signals are not limited to square wave signals. Other alternating signals, like sawtooth, or triangular shaped signals may be used also.

Therefore, the transitions in *Hoenninger* occur in accordance with a predetermined sequence, which is not

means for causing said testing means during execution of a first pattern signal to switch to the execution of a second pattern signal when a first pattern signal transition condition for making a transition to the execution of said second pattern signal holds; and means for causing said testing means during execution of said first pattern signal to switch to the execution of a third pattern signal when a second pattern signal transition condition for making a transition to the execution of said third pattern signal holds

as claimed in claim 10 of the present application.

Nor are the transitions that occur in accordance with a predetermined sequence disclosed in *Hoenninger*

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a step for switching, during execution of said first pattern signal, to the execution of a second pattern signal when a first pattern signal transition condition for making a transition to the execution of said second pattern signal holds; and a step for switching, during execution of said first pattern signal, to the execution of a third pattern signal when a second pattern signal transition condition for making a transition to the execution of said third pattern signal holds

as claimed in claim 20 of the present application.

For the forgoing reasons, Applicant respectfully requests that the rejection of claims 10 and 20 under 35 U.S.C. § 102(b) be withdrawn.

Claims 2-6 and 12-16 were rejected under 35 USC § 102(e) as being anticipated by Kamiyama (U.S. Publication No. 2004/000095350).

Claims 2-6 and 12-16 are canceled so the rejection is moot.

Rejections Under 35 U.S.C. § 103

Claims 9 and 19 were rejected under 35 USC § 103(a) as being unpatentable over Hoenninger (U.S. Patent No. 5,490,065) in view of Chapman et al. (U.S. Patent No. 5,442,738) and Kamiyama (U.S. Publication No. 2004/000095350).

Claims 9 and 19 are canceled so the rejection is moot.

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Attorney Docket No. 515.040US01

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CONCLUSION

Applicant respectfully submits that claims **10** and **20** are in condition for allowance and notification to that effect is earnestly requested. If necessary, please charge any additional fees or credit overpayments to Deposit Account No. 502432.

If the Examiner has any questions or concerns regarding this application, please contact the undersigned at the telephone number listed below.

Respectfully submitted,

Date: July 24, 2009

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